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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,634	03/18/2004	Joseph Kuczynski	ROC920040017US1	5365

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IBM CORPORATION  
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ROCHESTER, MN 55901-7829

EXAMINER
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GUSHI, ROSS N

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/803,634

Applicant(s)

KUCZYNSKI ET AL.

Examiner

Ross N. Gushi

Art Unit

2833

(M)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/31/05
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application. 4-16, 19, 20
- 4a) Of the above claim(s) ☒ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 17, 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/18/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election filed 3/31/05 is acknowledged. Applicant identified claims 1, 2, 3, 10, 17, and 18 as reading on the elected species (once exclusive combination of the various possible combinations of features). Claim 10 is drawn to a non-elected method of manufacturing and is withdrawn as being drawn to a non-elected invention. Claims 4-16, and 19-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/31/05. The traversal is on the ground(s) that examination of the entire application would not constitute a serious burden. This is not found persuasive. The method claims and the apparatus claims are separate and distinct inventions classified in different classes, and the search for prior art regarding one invention includes a search different that is different from the search for the prior art regarding the other invention, therefore the increased burden is a serious burden. Regarding the election of species, applicant has claimed numerous features that are opposite/opposing (e.g. adhesion/no adhesion between contact and adhesive; bonding/no bonding between adhesive and interposer; depositing prior/after inserting, etc.) which would require the examiner to search for basically numerous opposite/opposing features all which applicant claims as applicant's invention. This constitutes a serious burden.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in —

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a);

Claims 1, 2, 3, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Rathburn.

Per claims 1 and 17, Rathburn discloses an interposer for providing electrical connections between lands of a Land Grid Array (LGA) device and corresponding lands of an electronic assembly, said interposer comprising (for example see figures 8A, 30): an interposer frame 156 comprising a substantially planar insulating sheet defining voids through said insulating sheet perpendicular to a primary plane of the interposer frame, said voids provided for the insertion of contacts 154 spaced in a grid-array; a plurality of flexible metal conductive contacts 154 each having a first contact end and a second contact end, and wherein said contacts are inserted within and through the voids defined by said interposer frame such that said first contact extends above a top surface of said interposer frame and said second contact extends below a bottom surface of said interposer frame; and an elastic adhesive 158 disposed between said

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contacts and said interposer frame and adhered said interposer frame, whereby said contacts are mechanically retained said interposer frame while permitting travel of said contacts a direction perpendicular said interposer frame via flexure of said elastic adhesive.

Per claim 2, said elastic adhesive is disposed completely around a periphery of a portion of said voids and further adhered to said contacts, said portion being located within said voids between said top surface and said bottom surface of said interposer frame, whereby said contacts are surrounded by said adhesive and retained to said interposer by said adhesive.

Per claim 3, wherein said elastic adhesive is disposed partially around a periphery of a portion of said voids and further adhered to said contacts, said portion being located within said voids between said top surface and said bottom surface of said interposer frame, whereby said contacts are surrounded by said adhesive and retained to said interposer by said adhesive.

Per claim 18, the adhesive is bonded to the contact (col. 16, line 14).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 3, 17, and 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hopfer, III, et al. ("Hopfer") in view of Vinther and Kawaguchi et al. ("Kawaguchi"). Regarding claims 1, 2, 3, 17, and 18, Hopfer discloses an interposer for providing electrical connections between lands of a Land Grid Array (LGA) device and corresponding lands of an electronic assembly, said interposer comprising: an interposer frame 4 comprising a substantially planar insulating sheet defining voids 6 through said insulating sheet perpendicular to a primary plane of the interposer frame, said voids provided for the insertion of contacts 12 spaced in a grid-array; a plurality of flexible metal conductive contacts 12 each having a first contact end and a second contact end, and wherein said contacts are inserted within and through the voids defined by said interposer frame such that said first contact extends above a top surface of said interposer frame and said second contact extends below a bottom surface of said interposer frame.

Hopfer does not show an elastic adhesive.

Vinther discloses frame 26, contact 10, and conductive elastomer 36. At the time of the invention, it would have been obvious to fill the Hopfer apertures with conductive elastomer as taught in Vinther. The suggestion or motivation for doing so would have been to add resiliency to the contact and improve the shorting between the wire segments, as taught in Vinther, col. 6, lines 1-10. To the extent that Vinther does not state specifically that the conductive elastomer is adhesive, Kawaguchi discloses a conductive elastomeric adhesive. At the time of the invention, it would have been obvious to use known conductive elastomers, which are also adhesive, such as taught

in Kawaguchi. The suggestion or motivation for doing so would have been to ensure that the contact is secured to the frame, such motivation being well known in the art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ross Gushi whose telephone number is (571) 272-2005. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Paula A. Bradley, can be reached at 571-272-2800 extension 33. The phone number for the Group's facsimile is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**ROSS GUSHI**  
**PRIMARY EXAMINER**